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Christopher Richard Uhlik

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EXAMINER

MEHRPOUR, NAGHMEH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/753,266	Applicant(s) UHLIK ET AL.	
	Examiner MELODY MEHRPOUR	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-91 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-40, 64-82, 86 and 87 is/are allowed.
- 6) ☒ Claim(s) 41-48, 51, 56-63, 83-85 and 88-91 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. **Claims 41-46, 56-63, 83-85**, are rejected under 35 U.S.C. 102(e) as being anticipated by Shin et al. (US Patent Number 5,687,171).

Regarding claims 41, 60, Shin teaches a method/apparatus/a machine-readable medium of operating a base station comprising:

receiving a request for a traffic channel of a plurality of channels on a first random traffic channel of the plurality of traffic channels (see figure 1, col 7 lines 2- figure 2, S103, col 3 lines 41-54);

determining whether a access channel of the plurality of is available (see figure 2, S104, col 4 lines 1-10); and

communicating to the requestor whether an access channel of the plurality of channel is available (see figure 2, S105, S106, col 5 lines 1-13).

Regarding claim 42, Shin teaches a method wherein Communicating includes denying the request for a channel (See figure 1 S106, col 4 lines 1-10).

Regarding claims 43, 61, 83-84, Shin teaches a method wherein Communicating includes granting the request for a channel by assigning the first channel (see figure 1, S105, col 4 lines 1-11).

Regarding claims 44, 58, Shin teaches a method wherein Communicating includes granting the request for a channel by assigning a second channel and the first channel (see figure 2, S105, on second time). In step S101, the control unit (105) of a base station reads the strength of a signal that has been measured and provided at an output of the unit(102)for measuring the strength of a signal received during an interval that is shorter than that requested by a call. In step S102, the margin allowed for signal strength is calculated by subtracting the size of a received signal that has been read from the total interferences allocated by the network. In step S103, the evaluation on whether a new radio channel has been requested is made and if not, step S101 is carried out. If the evaluation result shows that a request has been made, the operation proceeds to step S104. In step S104 an evaluation is made on whether the signal strength required for allocating radio channels according to the channel request made in step S103 exceeds the limit of the margin calculated in step S102. If the evaluation

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result shows that the margin is more than the required power strength in step S104, the allocation request of a corresponding radio channel is allocated in step S105, first channel is assigned. The base station start back to "A", and go through the whole procedures again, and When the evaluation result shows that the margin is more than the required power strength in step S104, in step S105 allocate the second channel also (col 3 lines 42-54, col 4 lines 1-14).

Regarding claim 45, Shin inherently teaches a method wherein communicating includes granting the request for a channel by assigning a second channel instead of the first channel (see figure 2). In step S101, the control unit (105) of a base station reads the strength of a signal that has been measured and provided at an output of the unit(102) for measuring the strength of a signal received during an interval that is shorter than that requested by a call. In step S102, the margin allowed for signal strength is calculated by subtracting the size of a received signal that has been read from the total interferences allocated by the network. In step S103, the evaluation on whether a new radio channel has been requested is made and if not, step S101 is carried out. If the evaluation result shows that a request has been made, the operation proceeds to step S104. In step S104 an evaluation is made on whether the signal strength required for allocating radio channels according to the channel request made in step S103 exceeds the limit of the margin calculated in step S102. If the evaluation result shows that the margin is less than the required power strength in step S104, the allocation request of a corresponding radio channel is rejected in step S106, first

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channel is rejected. The base station start back to "A" and go through the whole procedures again, and When the evaluation result shows that the margin is more than the required power strength in step S104, in step S105 allocate the second channel (col 3 lines 42-54, col 4 lines 1-14).Therefore, the second channel allocated instead of the first channel.

Regarding claims 46, 59, shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 2, 104), causing the processor to perform a method (see figures 1-2, col 2 lines 66-67, col 3 lines 1-12),wherein determining includes evaluating a load of the system (col 3 lines 15-23).

Regarding claim 57, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12), wherein determining includes evaluating the radio frequency characteristics of the request (col 3 lines 1-41). Shin evaluating the characteristic channel (each frequency contains number of channels).

Regarding claim 63, Shin teaches a system comprising:

a processor (see figure 1, 104A, 1104B, 104N); and
a network interface coupled to the processor;
wherein the processor and the network interface are collectively configured to:
receive a request for a channel of a plurality of channels on a first channel of the
plurality of channels (see figure 2, S103, col 3 lines 42-54);
determine whether a channel of a plurality of channels is available (see figure 2,
S104, col 4 lines 1-9); and
communicate to the requestor whether a channel of the plurality of channels is
available (see figure 2, col 4 lines 1-10).

Regarding claim 85, Shin teaches a method wherein the request encodes a desired
channel of the plurality of channels (see figure 1, S105, col 4 lines 1-11).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all
obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 47-48, 51**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. (US Patent Number 5,687,171) in view of Wheeler et al. (US Patent Number 2002/0072348 A1).

Regarding claim 47, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shin fails to teach a method wherein determining includes evaluating an emergency status of the request. However Wheeler teaches a method wherein determining includes evaluating an emergency status of the request (page 2 sections 0013-0014). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Wheeler with Shin, in order to enable the user to register automatically in response to the a notification message.

Regarding claim 48, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shin fails to teach a method wherein determining includes evaluating a status of a subscriber from whom the request originates subscriber. However Wheeler teaches a method wherein determining includes

evaluating a status of a subscriber from whom the request originates subscriber (page 1 section 0008). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Wheeler with Shin, in order to enable the user to register automatically in response to the a notification message.

Regarding claim 51, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shin fails to teach a method wherein determining includes evaluating a nature of the request. However Wheeler teaches a method wherein determining includes evaluating a nature of the request (page 1 section 0011). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Wheeler with Shin, in order to enable the user to register automatically in response to the a notification message.

3. **Claims 49-50, 56**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. (US Patent Number 5,687,171) in view of Castanho et al. (US Patent Number 2002/0087740 A1).

Regarding claim 49, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by

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a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shin fails to teach a method wherein evaluating the status includes evaluating the subscription terms of the subscriber. However Castanho teaches a method wherein evaluating the status includes evaluating the subscription terms of the subscriber (page 2 section 0023). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Castanho with Shin, in order to enable the user to register automatically in response to the a notification message.

Regarding claims 50, 56, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor(see figure 1 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shin modified by Ranata fails to teach a method wherein evaluating the status includes evaluating the payment history and usage history of the subscriber (page 2 section 0035). However Castanho teaches a method wherein evaluating the status includes evaluating the payment history and usage history of the subscriber. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Castanho with Shin modified by Johnson, in order to notify roaming subscribers of suitable providers and their associated tariff rates when operating in an unfamiliar location.

4. **Claims 52-54**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al.(US Patent Number 5,687,171) in view of Mittal et al. (US Patent Number 2003/0163393A1).

Regarding claim 52, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shin fails to teach a method wherein the nature of the request includes a high bandwidth requirement. However Mittal teaches a method wherein the nature of the request includes a high bandwidth requirement (page 6 section 0071, page 9 section 0098). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Mittal with Shin, in order to enable the user to have complete control over the network by obtaining successful interface according to frequency platform.

Regarding claim 53, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1,104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shinn fails to teach a method wherein a nature of the request includes a low bandwidth requirement. However Mittal teaches a method wherein the nature of the request includes a low bandwidth requirement (page 6 section 0071, page 9 section 0099). Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention to combine the above teaching of Mittal with Shin, in order to enable the user to have complete control over the network by obtaining successful interface according to frequency platform.

Regarding claim 54, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shin fails to teach a method wherein a nature of the request includes a set of capabilities of equipment used to make the request.

However Mittal teaches a method wherein the nature of the request includes a high bandwidth requirement (page 4 section 0042, page 6 section 0071). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Mittal with Shin, in order to enable the user to have complete control over the network by obtaining successful interface according to device platform.

5. **Claim 55**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al.(US Patent Number 5,687,171) in view of Robinson (US Patent Number 5,680,398).

Regarding claim 55, Shin teaches a method/machine-readable medium (base station is a machine readable medium) embodying instruction, the instructions, when executed by

a processor (see figure 1, 104), causing the processor to perform a method (see figure 1, col 2 lines 66-67, col 3 lines 1-12). Shin fails teaches a method further comprising:

receiving a request for a third channel of the plurality of channels upon assigning of the first channel;

determining whether a third or fourth channel of the plurality of channels is available (see figure 2, S014); and

communicating to the requestor the third channel availability or fourth channel availability. However Robinson teaches comprising:

receiving a request for a third channel of the plurality of channels upon assigning of the first channel;

determining whether a third or fourth channel of the plurality of channels is available (see figure 2, S014); and communicating to the requestor the third channel availability or fourth channel availability(col 6 lines 57-64). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Robinson with Shin, in order to obtain the optimum traffic channel for use as signaling channel for improving random access communications system.

6. **Claims 88-91**, are rejected under 35 U.S.C. 103(a) as being unpatentable over Shin et al. (US Patent Number 5,687,171) in view of Schein et al. (US Publication Number 2003/0133426).

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Regarding claims 88, 90, Shin modified fails to teach a method further comprising calculating a set of spatial multiplexing weights and a set of spatial demultiplexing weights associated with the request. However, Schein teaches a method further comprising calculating a set of spatial multiplexing weights and a set of spatial demultiplexing weights associated with the request (page 2 section 0020). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Schein with Shin, in order to reduce the interference caused by the broadcast channel.

Regarding claims 89, 91, Shin fails to teach a method wherein communicating to the requestor includes using the set of spatial multiplexing weights to tailor a multi-lobe antenna radiation pattern. However, Schein teaches a method wherein communicating to the requestor includes using the set of spatial multiplexing weights to tailor a multi-lobe antenna radiation pattern (page 2 section 0020) Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Schein with Shin, in order to reduce the interference caused by the broadcast channel.

Allowable Subject Matter

7. **Claims 1-40, 64-82, 86-87**, are allowed.

Conclusion

8. Any responses to this action should be mailed to:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELODY MEHRPOUR whose telephone number is 5(571)272-7913. The examiner can normally be reached on Mon-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached (571) 272-7023.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Naghmeh Mehrpour/

Primary Examiner, Art Unit 2617

Nov 29, 2009

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